ORIGINAL

DOCKET NO. 000824-EI - Review of Florida Power Corporation's earnings, including effects of proposed acquisition of Florida Power Corporation by Carolina Power & Light

WITNESS: Direct Testimony of Andrew L. Maurey, Appearing on Behalf of Staff

DATE FILED: January 28, 2002

AUS
CAF
CMP
COM
CTR
ECR
GCL
OPC
MMS
SEC 1
OTH

# DIRECT TESTIMONY OF ANDREW L. MAUREY

**Q. Please state your name, occupation, and business address.**

A. My name is Andrew L. Maurey. I am employed by the Florida Public Service Commission (FPSC or Commission) as the Public Utilities Supervisor of the Finance and Tax Section in the Division of Economic Regulation. My business address is 2540 Shumard Oak Boulevard, Tallahassee, Florida, 32399-0850.

**Q. Please summarize your educational background.**

A. I graduated Magna Cum Laude from Florida State University in 1983 with a Bachelor of Science degree in Finance. I was elected a member of the Beta Gamma Sigma honor society. While with the First National Bank and Trust Company of Naples, I completed course work for and received American Institute of Banking diplomas in Foundations of Banking and Commercial Banking. In 1988, I received a Master of Business Administration degree from Florida State University.

**Q. Please summarize your business experience.**

A. After receiving my Bachelor's degree in 1983, I accepted a position as a credit analyst and commercial loan representative in the commercial loan department of the First National Bank and Trust Company of Naples. Upon successfully completing the holding company management training program, my responsibilities included performing credit analysis, loan review, and other assigned duties in the commercial loan department.

In 1986, I accepted a position as a regulatory analyst with the Hospital Cost Containment Board. In this position, my duties included

analyzing and evaluating financial statements and operating budgets of investor-owned and not-for-profit hospitals for regulatory compliance.

Upon receiving my Master's degree in 1988, I accepted a regulatory analyst position with the Florida Public Service Commission. My duties included analyzing financial and economic market information regarding the cost of capital and other finance-related issues.

In 1991, I was promoted to Regulatory Analyst Supervisor of the Finance Section. I was promoted to Public Utilities Supervisor of the Finance Section in 1994. As part of the agency reorganization in 2000, I assumed responsibility for the expanded Finance and Tax Section. In my current position, my primary responsibilities are advising the Commission on financial and economic matters regarding utility cost of capital and other finance-related issues.

**Q. Are you a member of any professional organizations?**

A. Yes. I am a member of the Society of Utility and Regulatory Financial Analysts (SURFA). I am currently the Vice President of SURFA and will begin a two year term as President of the organization in April 2002. I was awarded the professional designation Certified Rate of Return Analyst (CRRA) by SURFA in 1992. This designation is awarded based upon education, experience, and the successful completion of a written examination.

**Q. Have you previously testified before the Commission?**

A. Yes. I have testified on the appropriate return on equity as well as other cost of capital related issues before this Commission. In addition, as a member of Commission staff, I have participated in a

number of rate case and other regulatory proceedings.

**Q. What is the purpose of your testimony in this proceeding?**

A. The purpose of my testimony is to present an independent analysis of the fair and reasonable rate of return on equity for Florida Power Corporation (FPC or the Company). Based upon this analysis, I have recommended a rate of return on equity which is fair to ratepayers and shareholders, allows the Company to attract capital on reasonable terms, enables the Company to maintain its financial integrity, and is comparable to returns offered on investments of comparable risk. My testimony will also address the issue of the reasonable level of equity capital upon which this recommended ROE should be applied.

**Q. Please summarize your ROE and equity ratio recommendation for FPC.**

A. My analysis of objective market data and the application of generally accepted financial models indicates a range of return on equity for FPC of 9.75% to 12.5%. Based upon my analysis, I recommend a just and reasonable ROE for FPC of 11.5%.

In addition, I have reviewed FPC's testimony regarding its requested level of equity, the relative levels of equity maintained at the consolidated entity and related subsidiaries, and the range of equity ratios maintained by electric utilities in FPC's peer group. Based upon this analysis, I recommend FPC's equity ratio be capped at 55% as a percentage of investor capital for ratemaking purposes.

## REGULATORY FRAMEWORK AND RATE OF RETURN

**Q. Please summarize the guiding principles you relied upon in determining**

a fair and reasonable ROE for FPC.

A. I relied upon the principles established by the United States Supreme Court in the Bluefield Water Works and Improvement Company v. Public Service Commission of West Virginia, 262 U.S. 679 (1923), and the Federal Power Commission v. Hope Natural Gas Company 320 U.S. 591 (1944), decisions. In the Bluefield decision, the Supreme Court states:

> A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility, and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties.

[Bluefield Water Works and Improvement Company v. Public Service Commission of West Virginia, 262 U.S. 679, 692-693 (1923)]

In the Hope decision, the Supreme Court repeats the financial

integrity and capital attraction requirements set forth in the Bluefield decision:

> From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock. ... By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.

[Federal Power Commission v. Hope Natural Gas Company, 320 U.S. 591, 603 (1944)]

In summary, the Hope and Bluefield decisions require that the allowed ROE approved by the Commission be commensurate with returns on investments of similar risks as well as sufficient to maintain the financial integrity of the company and its ability to attract capital. Based on my understanding of these decisions, a utility should be allowed to recover all costs prudently incurred in the provision of regulated utility service, including an appropriate return on equity.

**Q. What is the market required rate of return on equity?**

A. The market required rate of return on equity is the minimum rate of return necessary to attract capital to an investment. The return is a

function of price, expected cash flow, and relevant risk. The price of equity capital is dictated by the capital markets through the buying and selling decisions of investors. Expected cash flow for an equity investor are dividends and capital appreciation. Investor return requirements are based on the perception of risk inherent in a particular investment relative to the return available on investments of comparable risk. The greater the risk, the greater the required return and vice versa.

**Q. What must be considered in estimating a fair and reasonable ROE?**

A. As discussed earlier, the basic principle is that the allowed ROE for regulatory purposes should be commensurate with returns required on investments of similar risk. In addition, the allowed return should be sufficient to maintain the financial integrity of the company and afford it an opportunity to attract capital on reasonable terms. The comparable returns and capital attraction standards required by the Supreme Court and the assessment of investor return requirements are typically met by the application of generally accepted market-based models such as the Capital Asset Pricing Model (CAPM) and the Discounted Cash Flow (DCF) model. These market-based models are specifically designed to estimate investors' required return on equity investments.

## COST OF EQUITY ESTIMATES

**Q. How did you arrive at your range of return on equity for FPC?**

A. I used two generally accepted financial models to determine the investor required ROE for FPC. My first analysis was the application of a DCF

model to an index of companies demonstrated to be comparable in risk to FPC. I also conducted a CAPM analysis. Both of these models are widely accepted by the financial community.

**Q. Why did you use more than one approach to estimate the required ROE for FPC?**

A. Unlike the cost of debt where the cost rate can be easily determined from a review of the contractual interest payments, the determination of the required return on equity is more subjective. Although there exists general acceptance of certain models, no one methodology is held universally above the others. By using the DCF model, which is more heavily influenced by the stock market, and the CAPM analysis, which is more interest rate sensitive, my analysis incorporates a more robust estimate of investor expectations embodied in the capital markets than relying upon a single methodology.

**Q. Can the required ROE be measured precisely?**

A. No. The required return on equity is a function of investor expectations. It is not possible to know all investors' expectations at any point in time. Consequently, professional judgement must be used when applying generally accepted models to capital market proxies for investor expectations. When comparing ROE recommendations from different witnesses, it is very important to understand the rationale underlying the subjective inputs to the models and how well these assumptions reflect reality.

**Q. Please describe the DCF model.**

A. The DCF model is the most widely used method of estimating the required

return on equity. According to DCF theory, the return on equity is the discount rate (required return) which equates the present value of the expected cash flows associated with a share of stock to the current price of the stock. Assuming a constant growth rate for dividends, this valuation process can be represented by the following formula:

$$K_e = D_1/P_0 + g$$

where: $K_e$ = investors' required return on equity

$D_1$ = expected dividend

$P_0$ = current price of the stock

$g$ = expected growth rate of future dividends

This version of the DCF model is referred to as the annual DCF model.

**Q. Is the annual DCF model the only version?**

A. No. DCF models can be derived to evaluate cash flows of any period (annual, quarterly, monthly, etc.). The annual version of the model assumes dividends are paid annually at the end of each year. The DCF model actually used should be derived to accurately reflect the timing and amount of expected cash flows. Since most electric utilities pay dividends quarterly, financial theory holds that the investors' required return on equity should be determined using a DCF model which recognizes the quarterly payment of dividends.

However, while the quarterly compounded DCF model recognizes the timing of cash flows to investors, the manner in which revenue requirements are typically set by state regulatory commissions does not take into account the fact that the utility receives its payments

monthly. Because of this monthly compounding, the utility has the opportunity to earn an actual return above the effective market-based return determined by the quarterly compounded DCF model. Due to the lack of recognition of the utility's receipt of monthly payments in the ratemaking process, some analysts recommend either the use of the annually compounded DCF model or a conversion of the results of the quarterly compounded DCF model from an effective rate of return to a nominal rate of return, particularly in the case when a projected test year is used.

Because this is a debate that will not be settled in this proceeding, and for purposes of comparability with the results proffered by other cost of capital witnesses in this case, my analysis looked at the results indicated by both the quarterly compounded and annually compounded versions of the DCF model. The DCF models I have used are shown on Exhibit ALM-1.

**Q. How did you determine the required return on equity for FPC using the DCF model?**

A. FPC is a wholly-owned subsidiary of Florida Progress Corporation, which in turn is a wholly-owned subsidiary of Progress Energy, Inc. Because of its corporate structure, FPC's stock is not publicly traded. As a result, a DCF analysis cannot be directly applied to FPC. To determine FPC's required return on equity, it was necessary to apply the DCF model to an index of companies as a proxy for FPC.

**Q. How did you select the companies to include in your index?**

A. I used the same index of companies recommended in the testimony of FPC

Witness Vander Weide with a couple modifications. My index of comparable companies is shown on Exhibits ALM-2 and ALM-6.

**Q. How did Witness Vander Weide select his index of comparable companies?**

A. According to the discussion on pages 24-27 of his direct testimony filed on September 14, 2001, in this docket, Witness Vander Weide started with all the electric companies followed by Value Line which have a Value Line safety ranking of 1, 2, or 3. From this list, he eliminated any companies that had decreased or not paid a quarterly dividend during any quarter of the past 5 years, did not have at least 3 analyst estimates included in its IBES earnings growth forecast, or had announced a merger. This exercise produced an index of 29 companies which he relied upon in his DCF analysis. Witness Vander Weide's index of companies is shown on Exhibit ALM-4.

**Q. How did you modify Witness Vander Weide's index of companies to arrive at your index of companies?**

A. I reviewed Witness Vander Weide's index and evaluated it based on the relative percentage of revenue each company generated from electric operations. Based on financial information as of December 31, 2000, as reported by C.A. Turner Utility Reports in its 2001 Financial Statistics of Public Utilities, many of the companies included in Witness Vander Weide's index derived only a fraction of their revenue from the generation, transmission and distribution of electricity. For my index, I only included the companies that generated at least 74% of their revenue from electric operations.

Of this group of 15 companies which rely significantly on

regulated electric operations for their revenue, I had to remove 3 companies due to data limitations. American Electric Power was eliminated because it had a Value Line earnings growth rate of 35%. In addition, a federal appeals court recently overturned the SEC's approval of the merger of AEP and Central and South West Corporation. DQE was eliminated because its Value Line earnings growth rate projection was negative. Finally, Progress Energy was eliminated from the group because it did not have a Value Line earnings growth rate listed in the most recent Value Line edition.

**Q. Why did you make these modifications?**

A. The comparable earnings standard of the Hope and Bluefield decisions establishes that a utility is entitled to a return commensurate with that being earned on investments of comparable risk but that it has no right to returns being realized or anticipated in highly profitable businesses or speculative ventures. In this proceeding, the Commission is only concerned with the required return on equity for the provision of regulated electric service. Therefore, to provide a more representative estimate of the true investor required return for this line of business, it was necessary to refine the index to include only those companies whose primary focus is the provision of electric service.

**Q. Why does this make a difference?**

A. As noted earlier, investors' required returns vary based on the relative risk of various investments. It is generally recognized by credit rating firms such as Standard & Poor's, Inc. (S&P) and Moody's Investors

Service (Moody's) that non-regulated ventures are more risky than the traditional regulated operations of electric utility holding companies. So on average, a holding company that derives 20% of its revenue from regulated utility operations and 80% from non-regulated businesses would be considered more risky than a holding company that generated 80% of its revenues from regulated operations and only 20% from non-regulated businesses. Since the Commission is only interested in the required return associated with the provision of regulated electric service, it stands to reason the most appropriate index to rely on as a proxy for FPC would be an index of companies that rely significantly on revenue generated from regulated operations. While its not possible to comprise a list of companies that relies entirely on regulated electric service for its revenue, it is possible to select a representative index of companies that relies primarily on regulated operations and thereby minimizing the component of required return associated with an element of holding company risk which is not relevant to this proceeding.

**Q. Can you quantify this difference?**

A. Yes. Exhibit ALM-4 shows Witness Vander Weide's index and the derived DCF estimate for each company. The weighted average of the indicated DCF returns for Witness Vander Weide's index is 13.24%. However, when you consider only the companies that generate at least 74% of their revenue from regulated electric operations, the DCF weighted average is 12.48%. This is a very simple illustration based solely on the results presented in Witness Vander Weide's testimony and is only intended to demonstrate the importance of selecting an appropriate group of

companies as a proxy for FPC for purposes of this proceeding.

**Q. In addition to the appropriate index as a proxy for FPC, what other assumptions did you make to arrive at the inputs used in your DCF analysis?**

A. Like all DCF analyses, the DCF models I used in my analysis require a number of inputs. These inputs are the stock price, the expected dividend, and the expected growth rate in dividends for each company in the index. For the stock price, I used the simple average of the monthly high and low stock price for each company for the three month period ended November 30, 2001. I relied on the S&P Stock Guide for these stock prices. I used the expected dividend for each company as reported by Value Line. Value Line is a source of financial information that is widely available and relied upon by investors. I also relied upon Value Line for the growth rate component used in the model. The specific Value Line editions I relied upon are cited in the footnotes on Exhibit ALM-1.

**Q. Did you incorporate an allowance for flotation costs in your DCF analysis?**

A. Yes. For purposes of my analysis, I have accepted the 5% flotation cost adjustment as recommended by Witness Vander Weide. The DCF calculations I performed include an adjustment of 5% to recognize the expenses associated with the issuance of common stock. An allowance for flotation costs allows the utility to recover costs such as registration fees, legal and underwriter fees, and other expenses generally incurred as a result of issuing common stock. Without a flotation cost

adjustment, the utility would not be able to earn its required rate of return because the net proceeds it receives are less than the sales price due to issuance costs. A 5% flotation cost adjustment represents approximately 26 basis points.

**Q. Please summarize the results of your DCF analysis.**

A. I applied both the quarterly and annual versions of the DCF model to an index of companies demonstrated to be comparable in risk with FPC. The annual version of the DCF model produced a return of 11.53%. The quarterly compounded DCF model produced a return of 11.74%. Exhibit ALM-2 summarizes these results.

**Q. Please describe the Capital Asset Pricing Model.**

A. As noted earlier, a fundamental principle of the Hope and Bluefield decisions is that the return to an equity investor should be commensurate with the return expected on investments of comparable risk. The CAPM analysis is a generally accepted means of estimating investors' required return as it relates to the returns available on investments of similar risk.

The CAPM analysis is based on two basic assumptions. The first assumption is that investors are risk averse. Investors require a higher return on investments of greater risk than they do on investments considered less risky and vice versa. The second assumption is that investors are only compensated for systematic or general market risk that cannot be eliminated through holding a well diversified portfolio of investments. The generally accepted measure of systematic risk is the company's beta.

The CAPM analysis is a risk premium analysis. The indicated return from applying the CAPM analysis is derived by adding a risk premium to the risk-free market rate of return. Three inputs are required to perform a CAPM analysis. These inputs are the risk-free rate, the market return, and beta.

**Q. Please explain how you selected the inputs you used in your CAPM analysis.**

A. For the risk-free rate, I used the forecasted yields on 30-year Treasury bonds as reported in the December 1, 2001, edition of Blue Chip Financial Forecasts. The average yield of the consensus forecasts for the first quarter of 2002 through the first quarter of 2003 is 5.4%.

For the market return, I performed a DCF analysis on the companies included in the ValueScreen data base. For purposes of this DCF analysis, I eliminated the companies that did not pay dividends or had dividend or earnings growth rates less than zero or greater than 20%. The stock prices are the average stock prices for November 2001. All inputs were obtained from the December 2001 ValueScreen data base. The resulting DCF return is 12.71%. To this amount I added 21 basis points to recognize the quarterly compounding of dividends. The explicit recognition of quarterly compounding of dividends is necessary in this analysis because the companies in the market index do not necessarily receive regular monthly payments as do utilities. The resulting market return is 12.92%.

For the beta input, I used the average beta for the companies in my index. The average Value Line beta for my index of comparable

companies is .53. Finally, I also made an additional adjustment of 26 basis points to allow for the recovery of flotation costs.

**Q. What is the required return indicated by your CAPM analysis?**

A. The required return indicated by my CAPM analysis is 9.72%. Exhibit ALM-3 shows the formula, inputs, and result of my CAPM analysis.

**Q. Please summarize your cost of equity results.**

A. As the result of my analysis of objective market data and the application of generally accepted financial models as well as consideration of the adjusted returns indicated by FPC Witness Vander Weide's analysis, I have determined a range of return on equity for FPC of 9.75% to 12.5%. Based upon this analysis, I recommend a just and reasonable ROE for FPC of 11.5%.

**Q. Have you seen any information which supports the reasonableness of your recommended rate of return?**

A. Yes. In a February 24, 2000, report prepared by Salomon Smith Barney (SSB) for the Board of Directors of Florida Progress Corporation, SSB estimated an average cost of equity of 9.0% for a group of companies comparable to Florida Progress. (See response to Staff POD Request No. 11, Salomon Smith Barney report, pp. 36 and 41) To estimate the cost of equity, SSB used a CAPM approach similar to the CAPM analysis I used in my testimony. Although this is not the return I'm recommending the Commission adopt for FPC in this proceeding, SSB's indicated cost of equity estimate is more in line with my recommended return of 11.5% than it is to the 13.2% return recommended by FPC Witness Vander Weide.

REBUTTAL OF FPC WITNESS VANDER WEIDE

Q. Have you reviewed FPC Witness Vander Weide's testimony filed in this proceeding?

A. Yes.

Q. Do you agree with his recommendation?

A. No.

Q. Why?

A. I believe 13.2% overstates the required return on equity for FPC for the provision of regulated electric service in Florida.

Q. Please explain.

A. Because many of the companies included in the index Witness Vander Weide used in his DCF analysis derive only a fraction of their revenue from electric operations, the results of this analysis reflect the required return of companies with significant non-regulated investments. It is generally accepted that the return set in this proceeding should only reflect the required return for the provision of regulated electric operations in Florida. As shown on Exhibit ALM-4, if the results of Witness Vander Weide's DCF analysis are adjusted to eliminate the companies that rely on regulated electric operations for less than 74% of their revenues, his weighted average DCF return drops from 13.24% to 12.48%.

Q. Why is this an important consideration?

A. The reliability of any DCF result is only as good as the reliability of the inputs. For the DCF model to accurately estimate investor return requirements, it must accurately reflect investor expectations. If the

growth rate used in the DCF model is lower than the growth rate investors expect, the indicated result will understate investors' true required return. Conversely, if the growth rate used in the model is greater than the growth rate investors' expect, the indicated return will overstate the true investor required return. To the extent Witness Vander Weide's DCF result is significantly weighted by growth rates associated with high-growth, high-risk non-utility investments, the indicated return overstates the required return for the provision of regulated electric service.

**Q. Do you disagree with any other aspects of his analysis?**

A. Yes. Witness Vander Weide's overall recommendation is significantly influenced by the result of his ex post risk premium analysis of 13.9%. However, its generally recognized that the ex post risk premium approach is unreliable for purposes of estimating future expected returns.

The results of an ex post approach are extremely sensitive to the period selected for measuring the risk premium. In fact, over many periods this type of analysis would indicate a negative risk premium. A negative risk premium would mean that investors would require a higher return on debt securities than on equity which is contrary to both financial theory and common sense. Schedule 5 attached to Witness Vander Weide's testimony shows that 24 of the 64 annual risk premium calculations relied upon in his ex post risk premium analysis are in fact negative.

**Q. Have the limitations of the ex post risk premium analysis been documented in the academic literature?**

A. Yes. Eugene Brigham and Louis Gapenski state that:

> The ex post approach to risk premiums used by Ibbotson Associates assumes that investors expect future results, on average, to equal past results. However, as we noted, the estimated risk premium varies greatly depending on the period selected, and, in any event, investors today probably expect results in the future to be different from those achieved during the Great Depression of the 1930s, during the World War II years of the 1940s, and during the peaceful boom years of the 1950s, all of which are included (and given equal weight with more recent results) in the Ibbotson Associates data. The questionable assumption that future expectations are equal to past realizations, together with the sometimes nonsensical results obtained in historical risk premium studies, has led to a search for ex ante risk premiums. (Emphasis added)

[Brigham, Eugene and Louis Gapenski, Financial Management Theory and Practice, Seventh Edition, The Dryden Press, Orlando, Florida, 1994, p. 345]

The availability and general acceptance of the DCF model and ex ante risk premium approaches make the use of the significantly less reliable ex post risk premium analysis unnecessary.

Q. **Do you have any concerns regarding Witness Vander Weide's ex ante risk premium analysis?**

A. Yes. As part of Witness Vander Weide's ex ante risk premium analysis,

he conducts a DCF analysis on an index of natural gas companies. As with the index of electric companies he selected, his index of natural gas companies includes companies that do not rely on regulated natural gas operations for a significant percentage of their revenues. When the results of his analysis are adjusted to remove the required return element associated with the 2 companies which depend on regulated gas operations for less than 60% of their revenues, his analysis produces a weighted average DCF result for natural gas distribution companies of 11.43%. Exhibit ALM-5 shows Witness Vander Weide's index and the resulting weighted average DCF results with and without companies that don't rely significantly on regulated gas operations for their revenue. If the DCF component in his analysis overstates the required return for natural gas distribution companies by nearly 200 basis points, it follows that his ex ante risk premium analysis and resulting ROE estimates based on these DCF results will overstate the true investors' required return of companies whose primary business is regulated natural gas distribution operations by a similar amount.

Q. **Please summarize your conclusions regarding Witness Vander Weide's ROE testimony in this proceeding.**

A. Because the returns indicated by his DCF and ex ante risk premium approaches overstate the required return for companies in the business of providing regulated electric service and because the result of his ex post risk premium approach based on earned returns is unreliable for estimating future required returns, Witness Vander Weide's recommended ROE of 13.2% overstates the required return of FPC for the purposes of

this proceeding.

APPROPRIATE EQUITY RATIO

**Q. Have you reviewed the equity ratio proposed by FPC for purposes of setting rates in this proceeding?**

A. Yes.

**Q. Should FPC's equity ratio be adjusted for ratemaking purposes?**

A. Yes.

**Q. Has this Commission previously adjusted the equity ratio of other companies for ratemaking purposes?**

A. Yes. In addition to several examples involving water and natural gas companies, the Commission has adjusted the equity ratio for ratemaking purposes of at least two companies with rated debt.

In Order No. PSC-92-0708-FOF-TL, issued July 24, 1992, in Docket No. 910980-TL, involving United Telephone Company of Florida, the Commission adjusted United Telephone's equity ratio to 57.5% for purposes of setting rates. In Order No. PSC-98-0802-FOF-EI, issued June 9, 1998, in Docket No. 950379-EI, involving Tampa Electric Company, the Commission capped TECO's equity ratio at 58.7% for the purpose of calculating earnings as part of the company's earnings sharing plan.

**Q. Why do you believe the Commission should adjust FPC's equity ratio for ratemaking purposes in this proceeding?**

A. The cost of capital is no different than any other cost the company may incur in carrying out its operations. As with any other expense, it is important that ratepayers are only charged for reasonable and prudent

costs associated with the provision of utility services. To the extent that FPC's amount of equity exceeds a reasonable level necessary to maintain its financial integrity and ensure its ability to attract capital under reasonable terms, unless an adjustment is made FPC ratepayers will be charged a cost of capital in excess of what is necessary for the provision of electric service.

**Q. Why do you believe FPC's equity ratio is excessive?**

A. There are several factors which demonstrate that FPC's proposed equity ratio for the projected 2002 test year of 61.2% is excessive. First, FPC's equity ratio is significantly greater than the average equity ratio for its peer group of 47.0%. In addition, FPC's projected equity ratio is well above the 51% implied risk-adjusted equity ratio target for an electric utility with a BBB+ bond rating. Finally, FPC's projected equity ratio is considerably greater than the 38.0% equity ratio maintained at the consolidated level. Each of these findings are significant on their own, but taken together they constitute a very strong case for adjusting FPC's equity ratio for ratemaking purposes to ensure that ratepayers are not subsidizing the consolidated company's non-regulated operations through the utility's cost of capital.

**Q. Please explain how cross-subsidization can occur through the cost of capital.**

A. Generally, when attempting to prevent cross-subsidization between a utility and non-utility affiliates, regulators tend to focus on costs such as the allocation of common plant and shared expenses or through affiliate transactions. However, significant cross-subsidization

between utility and non-utility affiliates can occur through the cost of capital if the utility is allowed to charge rates based on an excessive level of equity.

**Q. Why is equity more expensive than debt?**

A. Debt holders, through contractual arrangements, have a fixed claim on a business's assets and income. In the event of financial problems, debt holders must be paid before equity holders. Since equity holders have only a residual claim to a business's assets and income, equity investments are considered more risky than debt investments in the same business. For this reason, the cost of equity exceeds the cost of debt.

In addition to the difference in cost rates due to risk, equity is also more expensive than debt due to tax considerations. Interest payments on debt are tax deductible. For this reason, the cost of debt is the same on a pre-tax or after-tax basis. However, because there is no tax deduction associated with equity, the cost of equity is higher on a pre-tax basis than on an after-tax basis. For example, while a 7.0% cost rate on debt remains the same, an 11.5% after-tax ROE equates to a pre-tax ROE of 18.7%. The higher pre-tax cost of capital is what is used in setting rates charged to customers.

**Q. Please explain how this relates to cross-subsidization through the cost of capital.**

A. Bond rating agencies look at holding companies on a consolidated basis. While all subsidiaries are not necessarily financed in the same manner, the holding companies attempt to maintain financial profiles on a consolidated basis which meet the expectations of rating agencies.

Where the problem arises for regulators is when holding companies attempt to load higher cost equity at the utility level and maintain more of the lower cost debt at the other subsidiaries. For example, if a holding company is allowed to maintain an equity level at the utility which is in excess of what is necessary for the provision of utility service, and is permitted to charge rates based on this level of equity, while at the same time its non-utility affiliate is financing its more risky non-regulated operations with a significantly higher percentage of lower cost debt, by definition the ratepayers of the utility are subsidizing the stockholders of the holding company through the cost of capital.

**Q. Are you saying this is what is occurring at FPC?**

A. The anecdotal evidence appears obvious. According to the Company's 10 K report filed with the Securities and Exchange Commission (SEC), for the period ended December 31, 2000, FPC represented approximately 76% of the assets of Florida Progress. Since these assets were capitalized at an equity ratio of approximately 53.5%, the remaining 24% of Florida Progress' assets were capitalized at a significantly lower equity ratio to produce the approximate 40.1% equity ratio maintained by Florida Progress on a consolidated basis. According to the Company's response to Staff Interrogatory No. 160 for the period ended September 30, 2001, while the utility was capitalized with an equity ratio of 55.3%, the remainder of Florida Progress was capitalized with an equity ratio of 9.8%. While these two equity ratios are not directly comparable, the magnitude of the difference is readily apparent.

For purposes of setting rates in this proceeding, FPC is proposing an even wider disparity between the equity ratio at the utility level of 61.2% and the ratio maintained by Progress Energy on a consolidated basis. For the period ended September 30, 2001, Progress Energy had an equity ratio of 38.0% on a consolidated basis. In fact, the use of leverage at the holding company level is cited in Progress Energy's 2000 SEC 10 K report as the primary reason that the credit rating of FPC was downgraded in the fall of 2000 by S&P and Moody's. To prevent cross-subsidization through the cost of capital on a going-forward basis, I recommend the Commission adjust FPC's equity ratio for ratemaking purposes to a level more commensurate with the level of equity maintained by other electric utilities in its peer group.

**Q. Has S&P commented on the amount of debt leverage used to finance non-regulated operations?**

A. Yes. In a S&P report prepared for purposes of evaluating the ratings impact of the merger, it was noted,

> Florida Progress' credit quality is supported by solid cash flow from its utility subsidiary, Florida Power, partly offset by a weaker financial profile for its non-regulated subsidiary, Electric Fuels Corp. ... The risk profile of these units is greater than the traditional regulated utility business, requiring greater cash flow commensurate with the higher risk. ... Also, the uncharacteristically high amount of debt used to finance non-regulated activities adversely affects the consolidated entity's financial

profile. (Emphasis added)

[Staff POD Request No. 12, S&P Report for CP&L Energy, 9/13/00, p. 8]

**Q. Please discuss the level of equity maintained by the electric utilities in FPC's peer group.**

A. As I discussed earlier in my testimony, it is necessary to apply the market based models at the holding company level because this is the level at which market information is available. However, for a comparison of equity ratios of companies in FPC's peer group, it was necessary to review the level of equity maintained at the utility level. Exhibit ALM-7 shows the relative level of capitalization for each of the utilities in FPC's peer group. This list consists of all the electric utilities owned and operated by the holding companies in Witness Vander Weide's index and for which balance sheet information was available. In order to have comparable information, each utility on the list had to have a SEC 10 K report for the period ended December 31, 2000, and be included in the year-end 2000 S&P Balance Sheet Statistics for Electric Utilities data base. As this schedule shows, the 61.2% equity ratio FPC is proposing in this proceeding is above the top of the range and significantly above the average for this group of single A (A) and triple B (BBB) rated electric utilities.

**Q. How does FPC's proposed equity ratio compare with the level of equity maintained by Progress Energy on a consolidated basis?**

A. Exhibit ALM-8 shows the equity ratios of FPC, CP&L, and Progress Energy on a consolidated basis as of September 30, 2001, as reported in the SEC 10 Q report. FPC's equity ratio of 55.3% is well above the equity ratio

of its sister electric utility CP&L of 45.5% and is significantly higher than the 38.0% maintained by Progress Energy on a consolidated basis.

**Q. What equity ratio do you recommend the Commission allow FPC for ratemaking purposes?**

A. I recommend the Commission use an equity ratio of 55% as a percentage of investor capital for ratemaking purposes.

**Q. Isn't the determination of an appropriate equity ratio a subjective decision?**

A. Yes. The determination of the appropriate level of equity maintained by any company is a somewhat subjective process. However, the amount of equity maintained at the utility level should be based on an optimal capital structure which minimizes the cost of capital for the provision of regulated service, not at a level designed to offset the excessive use of debt leverage at other subsidiaries of the parent company. Based on my analysis, a fair and reasonable equity ratio for both shareholders and ratepayers is 55%.

**Q. Why do you believe a 55% equity ratio is fair and reasonable for both shareholders and ratepayers?**

A. There are several reasons why a 55% equity ratio is fair and reasonable for both shareholders and ratepayers. First, the Company itself recognizes a 55% equity ratio as fair and reasonable. According to the information on MFR Schedule D-10b regarding financing plan assumptions and the evaluation of capital structure efficiency, FPC cites a capital structure objective for common equity of greater than 50% as a percentage of investor capital. In addition, as reported in its 10 Q

report filed with the SEC for the period ended September 30, 2001, FPC's actual equity ratio is 55.3%.

Second, a 55% equity ratio is significantly higher than the relative level of equity maintained by its sister utility and by the parent company on a consolidated basis. If equity ratios of 45.5% for CP&L and 38.0% on a consolidated basis provide adequate bondholder protection and access to the capital markets under favorable terms for these entities, then a 55% equity ratio more than ensures the same for FPC.

Third, a 55% equity ratio is significantly higher than the average equity ratio of 47.0% maintained by the electric utilities in FPC's peer group. At 55%, FPC's equity ratio will still remain near the top of the range of companies in its peer group.

Finally, a 55% equity ratio compares favorably to the S&P financial benchmarks for A- and BBB+ rated electric utilities. Exhibit ALM-9 shows the S&P implied equity ratio targets for A- and BBB+ rated electric utilities. As this exhibit shows, a 55% equity ratio is at the top of the target range for an A rated company while this level of equity is well above the target range for a BBB rated company. FPC is rated BBB+ by S&P.

**Q. Please discuss your understanding of how S&P assigns corporate credit ratings for utility holding companies and their respective operating companies (electric utilities).**

A. As I noted earlier, S&P assigns a corporate credit rating based on the risk of default of the consolidated entity. In the absence of

structural or proscriptive measures to insulate the individual business units, all subsidiaries are assigned the same corporate credit rating as the holding company. Prior to the merger, FPC had a S&P rating of double A minus (AA-). In anticipation of the imminent completion of the merger, S&P downgraded FPC's rating to BBB+ on November 20, 2000.

**Q. What does a credit rating downgrade mean?**

A. Generally speaking, a credit rating downgrade means the borrower has reduced financial flexibility and will have to pay a higher return to attract capital than it would have at a stronger credit rating.

**Q. Is that the case with FPC?**

A. It's not clear at this point. Despite the credit rating downgrade, FPC Witness Myers testifies that the merger will increase the Company's ability to attract capital and lower its overall cost of capital. While in theory a BBB+ utility will usually pay more to borrow money than a AA- utility, it remains to be seen if the market will in fact agree with Witness Myers' view of FPC and downplay the significance of the Company's credit rating downgrade.

**Q. What is the revenue requirement impact of your equity ratio adjustment?**

A. As shown on Exhibit ALM-10, the incremental difference in revenue requirement at the 61.2% equity ratio the Company is proposing be used for ratemaking purposes compared with the indicated revenue requirement at FPC's actual equity ratio of 55% I recommend the Commission recognize in this proceeding is approximately $23.5 million per year.

**Q. Is there any other reason why you believe FPC's 61.2% equity ratio is unreasonable?**

A. Yes. FPC's proposed 61.2% equity ratio results in an overall cost of capital which is excessive. Because equity is the most expensive source of capital to a company, it is important that companies maintain a level of equity which minimizes its overall cost of capital. To the extent a utility company maintains a level of equity in excess of what is required for the provision of regulated operations, it is passing on a cost to its ratepayers which is excessive.

**Q. Can this excessive cost be demonstrated?**

A. Yes. Exhibit ALM-11 shows a comparison of Gulf Power Company (Gulf) and FPC's requested capital structures in their respective rate cases. For purposes of comparison, I have used the 11.5% ROE I recommended earlier in my testimony for both companies. As this exhibit shows, FPC's overall cost of capital is 183 basis points higher on a pre-tax basis than Gulf's cost of capital at the same ROE. Even after making the equity ratio adjustment I've recommended, FPC's overall cost of capital is still 119 basis points higher on a pre-tax basis than Gulf's cost of capital. There has been no demonstration made by FPC to explain why its cost of capital should be so much greater than Gulf's cost of capital. Or more specifically, there is no logical reason why FPC ratepayers should be charged a significantly higher cost of capital for the provision of regulated electric service than the cost of capital being charged Gulf ratepayers.

**Q. Does your equity ratio recommendation take into account the risk adjustment S&P makes for off-balance sheet obligations?**

A. To the extent recognition of S&P's adjustment to the capitalization

ratios of electric utilities for off-balance sheet (OBS) obligations is necessary, yes it does.

**Q. Please explain how S&P incorporates OBS obligations into its analysis of electric utility capitalization ratios.**

A. The primary OBS obligations for electric utilities are purchased power contracts. Because the benefits and risks of purchased power contracts depend on a range of factors, S&P conducts both a qualitative and quantitative analysis of these contracts for purposes of assessing the level of debt protection measures available to bond holders.

The qualitative analysis focuses on the nature of the contracts. These features include whether the contract is a take-or-pay obligation or a take-and-pay obligation; whether the power is economical and needed; whether there are performance standards; how much discretion the utility has over maintenance and dispatch; whether the contract was preapproved by regulators; and whether there is a recovery clause for capacity and fuel payments. An assessment of these factors results in the assignment of a risk factor which is later used in the quantitative analysis.

In the quantitative analysis, S&P calculates the present value of future capacity payments discounted at 10%. The 10% is used as a proxy for the utilities weighted average cost of capital. S&P then multiplies the present value amount by the risk factor determined in the qualitative analysis to estimate the OBS obligation. The risk factor for take-and-pay contracts generally ranges from 10% to 40%. Take-and-pay contracts are the primary form of purchased power contracts employed

by FPC.

The estimated OBS obligation is added to the balance sheet as additional debt and an interest component is added to the income statement. Coverage and debt-to-capital ratios are then adjusted to reflect the additional debt and benchmark comparisons for the credit rating are made using the adjusted ratios.

**Q. Does S&P require regulators to recognize its adjusted ratios for ratemaking purposes?**

A. No, it does not. S&P does not take official positions in regulatory proceedings or make recommendations on how state regulatory commissions should interpret or respond to its rating pronouncements.

It is important to recognize that S&P's constituents are bond holders. While at times the interests of bond holders, shareholders, and utility ratepayers are in line, there are times when they are not. S&P does not judge what companies or the state regulatory commissions do. S&P simply analyzes what has occurred along with a prospective view of what it expects to occur and renders a decision regarding how these actions impact the consolidated entity's financial measures in terms of bond holder protection.

**Q. How does your recommended equity ratio account for S&P's assessment of FPC's OBS obligations?**

A. Exhibit ALM-7 shows the equity ratios for FPC's peer group on an actual and on a S&P adjusted basis. FPC's actual equity ratio for the period ended December 31, 2000, of 53.5% equates to an adjusted equity ratio of 47.6%. As page 2 of this exhibit shows, FPC's actual equity ratio

is in the upper quartile and its adjusted equity ratio is at the top of the upper middle quartile of its peer group. Based on financial information as of September 30, 2001, FPC's actual equity ratio of 55.3% equates to an adjusted equity ratio of 49.1%. An adjusted equity ratio of 49.1% would place FPC in the upper quartile of its peer group. This demonstrates that my recommendation to hold FPC to its actual equity ratio for ratemaking purposes will not put the Company at a disadvantage relative to other electric utilities in its peer group.

In addition to being comparable with other electric utilities, an adjusted equity ratio of 49.1% is in line with the range of implied equity ratio targets for BBB rated utilities with an above average business position as shown on Exhibit ALM-9. S&P assigns FPC an above average business position along with its BBB+ credit rating.

**Q. Does FPC have control over the amount of purchased power contracts it holds?**

A. Definitely. FPC has complete control over any new purchased power contracts it may choose to enter into. Since 1996, this Commission has approved FPC's efforts to reduce more than 25% of its purchased power commitments to Qualifying Facilities (QFs) through buy-downs and buy-outs of these contracts. In addition, FPC has the option, with a three year notice, to reduce the amount of purchased power it annually buys from the Southern Company from 400 MW to 200 MW.

My point is that not only is this element of financial risk compensated for within the equity ratio I have recommended, this is a risk factor the company can continue to mitigate on a going-forward

basis.

**Q. How does S&P characterize the Florida Commission's regulation with respect to the issue of purchased power contracts?**

A. S&P views the Commission's regulation of electric utilities in Florida as supportive. S&P recognizes that the Commission allows full recovery of capacity payments associated with these contracts through the capacity cost recovery clause as well as full recovery of energy payments through the fuel cost recovery clause. In addition, S&P specifically acknowledges the Commission's approval of the recovery of buy-out costs associated with the termination of select purchased power contracts as supportive regulation.

**Q. If the Commission makes the equity ratio adjustment you've recommended, will FPC's corporate credit rating be downgraded?**

A. No, I don't believe so. As I mentioned earlier, S&P looks at the company's financial position on a consolidated basis. When S&P downgraded FPC from AA- to BBB+ in the fall of 2000, it recognized that the consolidated entity would have debt leverage above 60%, or in other words, an equity ratio less than 40%. Relative to this level, a 55% equity ratio for ratemaking purposes remains very conservative. This is particularly true when its recognized that CP&L maintains an equity ratio of 45%. Moreover, if the company is concerned about S&P's assessment of its leverage, it can easily increase the amount of equity supporting its more risky non-regulated operations. In fact, S&P expects the parent company to improve its credit protection measures on a consolidated basis to compensate for the higher risk associated with

its expanding investment in non-regulated operations and to reduce the significant level of debt leverage incurred as a result of the acquisition of Florida Progress.

The important point to take from this discussion is that the level of equity allowed for ratemaking should be in line with the risk associated with the provision of regulated operations. There is no S&P mandate that Florida or any other state regulatory commission allow an excessive equity ratio at the utility level to compensate for the parent company's use of excessive leverage to finance other businesses owned by the holding company.

**Q. In addition to the comments in the S&P report you cited earlier, is there any other support you have for believing Progress Energy is proposing an excessive equity ratio to support the use of greater debt leverage to finance its non-regulated businesses?**

A. In addition to the comments by S&P cited earlier, another reason I believe FPC's proposed equity ratio for utility operations is compensating for the parent company's use of greater debt leverage to finance its non-regulated businesses can be found on Exhibit ALM-12. This exhibit shows a comparison of the equity capitalization of the Southern Company to Progress Energy and of Gulf to FPC. As this exhibit shows, while the Southern Company maintains an equity ratio on a consolidated basis which is comparable with the ratio maintained by Progress Energy, FPC's proposed equity ratio for ratemaking purposes of 61.2% is significantly greater than the 47.0% equity ratio proposed by Gulf in its ratecase. I believe this comparison illustrates that

Progress Energy is proposing an excessive amount of equity at the utility level to compensate for the use of significantly more debt leverage to finance its non-regulated operations. For this reason, along with the fact that its sister utility maintains an equity ratio considerably lower than what is being proposed for FPC, unless an equity ratio adjustment is made, FPC ratepayers will be subsidizing the non-regulated investments of the parent company.

**Q. Please discuss the equity adjustment relating to the extended outage of FPC's Crystal River 3 (CR 3) nuclear unit.**

A. In June 1997, the Commission approved a settlement between FPC and all parties that intervened in Docket No. 970261-EI. This docket was opened to review FPC's request to recover replacement fuel and purchased power costs and to investigate the specific actions and circumstances that led to the extended outage of CR 3. The parties to the settlement agreed not to seek or support any increase or reduction in FPC's base rates or the authorized range of its return on equity during the four-year period the agreement was in effect. In exchange for the above consideration, the authority to recover a portion of the replacement fuel costs, and an end to the prudence review, FPC agreed to absorb the remaining costs resulting in an approximate $109 million after-tax loss. In addition, the settlement provided that for purposes of measuring FPC's future earnings, the Commission will permit the Company to make an adjustment to its earnings surveillance report (ESR) to exclude the costs associated with the outage. This CR 3 equity adjustment is accomplished by increasing common equity by $109 million and reducing variable cost

debt by the same amount. The settlement agreement expired on June 30, 2001.

The settlement agreement did not specify when the CR 3 adjustment would be terminated. However, during the agenda conference when this matter was discussed, FPC agreed and the Commission Order later reflected that the Commission would review the reasonableness of continuing this adjustment after the conclusion of the four-year period if there was a change in the law ordering industry restructuring or in FPC's next rate case.

**Q. What was FPC's equity ratio prior to the settlement agreement?**

A. Based on its May 1997 ESR, FPC's equity ratio was 58.8% on an FPSC basis prior to the Commission's approval of the settlement.

**Q. What was FPC's equity ratio following the approval of the settlement agreement?**

A. Based on its restated June 1997 ESR, FPC's equity ratio was 55.0% without the CR 3 adjustment and 59.0% with the CR 3 adjustment.

**Q. What is FPC's equity ratio as reported in its latest ESR?**

A. Based on its October 2001 ESR, FPC's equity ratio is 59.0% without the CR 3 adjustment and 62.6% with the CR 3 adjustment.

**Q. Is the CR 3 equity ratio adjustment still necessary?**

A. No, it is not. Exhibit ALM-13 shows FPC's equity ratio as reported in its monthly ESRs from January 1995 through October 2001. This exhibit shows that FPC has fully recovered from the adverse impact to earnings it agreed to as part of the settlement to end the prudence review of the extended outage of CR 3.

As I have discussed earlier, the issue at hand is what is an appropriate capital structure for purposes of providing regulated electric service on a going-forward basis. The facts presented in my testimony demonstrate why FPC's proposed equity ratio of 61.2% is excessive. If the Company's equity ratio were in the low to mid 40's, there might be a reason for continuing this adjustment. However, given the current level of equity maintained at the utility level, the need for this adjustment ended when the Company's equity ratio without the CR 3 adjustment returned to its pre-settlement level. In fact, not only is there no longer a need to make the CR 3 adjustment, because the Company's proposed equity ratio is excessive, the appropriate adjustment now is to reduce FPC's proposed equity ratio to its actual level for ratemaking purposes.

**Q. Will the discontinuance of the CR 3 equity adjustment violate the settlement agreement approved by the Commission?**

A. No. The settlement agreement has expired. FPC is engaged in a rate case. As shown on Exhibit ALM-14, the Company has recovered from the adjustment to earnings in 1997. Time has eliminated the need for making the CR 3 equity adjustment.

The graph shown on Exhibit ALM-14 is based on information reported by FPC in its monthly ESRs. However, it should be noted that the dip in equity ratio for the period June 1997 through November 1999 is significantly exaggerated by the manner in which the Company reported the Tiger Bay regulatory asset and the accompanying debt on its ESR. The amount of debt for this period was overstated on its ESRs resulting

in an understatement of its reported equity ratio. There was no spike in FPC's equity ratio in December 1999 but rather a change in how the Company reported these amounts on its ESR. What is important to take from this graph is that the Company's equity ratio is back to its pre-settlement level and the CR 3 adjustment is no longer warranted.

**Q. Please summarize your recommendation regarding the appropriate equity ratio the Commission should recognize for FPC for ratemaking purposes.**

A. Based on the level of equity maintained by other electric utilities in FPC's peer group, the level of equity maintained by its sister utility and the parent company on a consolidated basis, the Company's own recognition of an optimal level of equity capitalization, the Company's actual level of equity as reported in its SEC filings, and the S&P financial targets for a BBB+ rated utility, a 55% equity ratio is appropriate for ratemaking purposes. This level of equity capitalization will balance the interests of ratepayers and shareholders by providing the Company with the financial integrity to attract capital under reasonable terms and preventing a cross subsidization of the parent company's non-regulated operations through the utility's cost of capital.

**Q. Any further comments?**

A. Yes. In the event the Commission does not approve my recommendation to adjust FPC's equity ratio for ratemaking purposes, the ROE I recommended earlier in my testimony will overstate FPC's true required return. The ROE I've recommended earlier is based upon an index of companies whose underlying utilities have an average equity ratio of 47.0%. At a 61.2%

equity ratio, FPC would have significantly less financial risk than the average company in this index. Therefore, in recognition of this lower financial risk relative to the average risk of the index, I would recommend an ROE of 11.0% for FPC if no equity ratio adjustment is made.

## SUMMARY

**Q. Please summarize your ROE recommendation.**

A. As the result of my analysis of objective market data and the application of generally accepted financial models, I have determined a range of return on equity for FPC of 9.75% to 12.5%. Based upon this analysis, I recommend a just and reasonable ROE for FPC of 11.5%.

**Q. Please summarize your recommendation regarding the appropriate equity ratio for ratemaking purposes.**

A. Based on the level of equity maintained by other electric utilities in FPC's peer group, the level of equity maintained by the parent company on a consolidated basis, the Company's own recognition of an optimal level of equity capitalization, and the S&P financial target for a BBB+ rated utility, a 55% equity ratio is appropriate for ratemaking purposes.

**Q. Does this conclude your testimony?**

A. Yes.

Discounted Cash Flow Models:

Annual

$$k = D_1 / P_0(1-FC) + g$$

Quarterly

$$k = \frac{d_1(1+k)^{.75} + d_2(1+k)^{.50} + d_3(1+k)^{.25} + d_4}{P_0(1-FC)} + g$$

| | | | |
|---|---|---|---|
| | $k$ | = | Cost of equity |
| (1) | $D_1$ | = | Next yearly dividend, calculated by multiplying the last dividend per Value Line by the factor (1+g). |
| (1) | $d_1, d_2, d_3, d_4$ | = | Next four quarterly dividends, calculated by multiplying the last four quarterly dividends per Value Line by the factor (1+g). |
| (2) | $P_0$ | = | Average of the monthly high and low stock prices for the three months ended Nov. 2001 per S&P Stock Guide. |
| | FC | = | Flotation costs expressed as a percent of gross proceeds. |
| (1) | g | = | Value Line forecast of future earnings growth. |

(1) Dividends and Growth Rates from Value Line editions 1, 5, and 11. (Dec. 7, 2001; Jan. 4, 2002; and Nov. 16, 2001; respectively.)

(2) Stock Prices from Oct., Nov., Dec. 2001 S&P Stock Guides.

FLORIDA POWER CORPORATION
SUMMARY OF DISCOUNTED CASH FLOW ANALYSIS
FOR ELECTRIC ENERGY COMPANIES

| Company | Quarterly Dividend | Average Price | | Earnings Growth Rate | Quarterly DCF | Without Flotation Costs |
|---|---|---|---|---|---|---|
| Ameren Corp. | $0.635 | $39.882 | $39.882 | 4.00% | 11.26% | 10.90% |
| Cleco Corp. | $0.218 | $20.668 | $20.668 | 8.00% | 13.02% | 12.77% |
| DPL Inc. | $0.235 | $23.975 | $23.975 | 10.50% | 15.31% | 15.07% |
| DTE | $0.515 | $42.333 | $42.333 | 6.50% | 12.20% | 11.91% |
| FPL Group | $0.560 | $54.135 | $54.135 | 4.50% | 9.21% | 8.97% |
| Hawaiian Elec. | $0.620 | $38.630 | $38.630 | 5.00% | 12.42% | 12.05% |
| IDACORP Inc. | $0.465 | $37.372 | $37.372 | 2.50% | 8.03% | 7.75% |
| Great Plains Energy Inc. | $0.415 | $25.075 | $25.075 | 4.50% | 12.11% | 11.72% |
| NSTAR | $0.515 | $42.323 | $42.323 | 6.50% | 12.20% | 11.92% |
| Pinnacle West Capital | $0.375 | $41.178 | $41.178 | 5.50% | 9.83% | 9.61% |
| Southern Co. | $0.335 | $24.343 | $24.343 | 6.50% | 12.96% | 12.64% |
| TECO Energy | $0.345 | $26.888 | $26.888 | 7.00% | 13.01% | 12.71% |
| Market Weighted Average | | | | | 11.74% | 11.48% |

| Company | Stock Price | Earnings Growth Rate | Annual DCF |
|---|---|---|---|
| Ameren Corp. | $39.882 | 4.00% | 10.97% |
| Cleco Corp. | $20.668 | 8.00% | 12.79% |
| DPL Inc. | $23.975 | 10.50% | 15.06% |
| DTE | $42.333 | 6.50% | 11.96% |
| FPL Group | $54.135 | 4.50% | 9.05% |
| Hawaiian Elec. | $38.630 | 5.00% | 12.10% |
| IDACORP Inc. | $37.372 | 2.50% | 7.87% |
| Great Plains Energy Inc. | $25.075 | 4.50% | 11.78% |
| NSTAR | $42.323 | 6.50% | 11.96% |
| Pinnacle West Capital | $41.178 | 5.50% | 9.68% |
| Southern Co. | $24.343 | 6.50% | 12.67% |
| TECO Energy | $26.888 | 7.00% | 12.74% |
| Market Weighted Average | | | 11.53% |

## Summary of CAPM Results:

k = RF + beta (MR - RF)

k = required return

RF = average yield, 30-year Treasury, Dec. 2001 Blue Chip Financial Forecast

beta = Value Screen, Dec. 2001, average for index

MR = DCF result for market

Quarterly compounding = 0.21%

beta = .54

RF = 5.4%

MR = 12.71% + 0.21% = 12.92%

k = 5.4 + .54 (12.92-5.4)

k = 9.46%

Flotation Cost Adjustment = 0.26%

k = 9.46 + 0.26

k = 9.72%

FLORIDA POWER CORPORATION
SUMMARY OF DISCOUNTED CASH FLOW ANALYSIS
FOR ELECTRIC ENERGY COMPANIES

| | (1) | | | | (2) |
|---|---|---|---|---|---|
| Company | Quarterly Dividend | Average Price | I/B/E/S g | Quarterly DCF | Revenue from Electric Operations |
| Allegheny Energy | $0.430 | $48.940 | 9.69% | 13.95% | 62.5% |
| ALLETE | $0.268 | $23.347 | 8.42% | 13.92% | 44.3% |
| Ameren Corp. | $0.635 | $42.097 | 4.50% | 11.41% | 91.4% |
| American Electric Power | $0.600 | $47.310 | 5.85% | 11.75% | 100.0% |
| Cinergy Corp. | $0.450 | $33.530 | 5.71% | 11.94% | 63.9% |
| Cleco Corp. | $0.218 | $22.808 | 10.03% | 14.63% | 75.6% |
| CMS Energy Corp. | $0.365 | $28.478 | 8.69% | 14.87% | 29.7% |
| Dominion Resources | $0.645 | $63.025 | 9.86% | 14.85% | 48.5% |
| DPL Inc. | $0.235 | $27.967 | 9.54% | 13.61% | 75.8% |
| DQE | $0.420 | $22.118 | 5.67% | 14.45% | 77.5% |
| DTE | $0.515 | $44.574 | 6.60% | 12.01% | 100.0% |
| Duke Energy | $0.275 | $42.335 | 11.66% | 14.88% | 37.6% |
| FPL Group | $0.560 | $58.643 | 6.75% | 11.14% | 100.0% |
| Hawaiian Elec. | $0.620 | $37.358 | 2.50% | 9.92% | 74.3% |
| IDACORP Inc. | $0.465 | $37.303 | 6.40% | 12.23% | 83.1% |
| Kansas City Power & Lt. | $0.415 | $25.080 | 5.67% | 13.39% | 95.3% |
| MDU Resources | $0.220 | $34.252 | 10.82% | 13.97% | 17.7% |
| NiSource Inc. | $0.290 | $28.412 | 9.36% | 14.13% | 25.8% |
| NSTAR | $0.515 | $41.908 | 6.80% | 12.54% | 100.0% |
| Pinnacle West Capital | $0.375 | $47.310 | 7.80% | 11.48% | 95.7% |
| Progress Energy | $0.530 | $42.810 | 6.79% | 12.57% | 86.6% |
| Public Serv. Enterprise | $0.540 | $47.582 | 6.47% | 11.78% | 57.2% |
| Reliant Energy | $0.375 | $38.553 | 7.76% | 12.37% | 14.8% |
| Southern Co. | $0.335 | $22.963 | 6.82% | 13.71% | 100.0% |
| TECO Energy | $0.345 | $30.798 | 7.99% | 13.25% | 100.0% |
| TXU Corp. | $0.600 | $46.895 | 8.21% | 14.34% | 33.9% |
| UIL Holdings | $0.720 | $47.498 | 2.33% | 9.08% | 80.0% |
| Vectren Corp. | $0.255 | $21.660 | 7.75% | 13.28% | 20.4% |
| Xcel Energy Inc. | $0.375 | $28.875 | 6.64% | 12.74% | 49.8% |
| Market Weighted Average | | | | 13.24% | |

(3) Market Weighted Average 12.48%

(1) FPC Witness Vander Weide Testimony, Schedule 1
(2) C.A. Turner Utility Reports, 2001 Financial Statistics of Public Utilities
(3) Market weighted average of DCF results for companies with 74% or more of revenues generated from electric operations

FLORIDA POWER CORPORATION
SUMMARY OF DISCOUNTED CASH FLOW ANALYSIS
FOR NATURAL GAS DISTRIBUTION COMPANIES

| Company | (1) Quarterly Dividend | (1) Average Price | I/B/E/S g | Quarterly DCF | (2) % Revenue from Gas Operations |
|---|---|---|---|---|---|
| AGL Resources | $0.270 | $23.223 | 7.16% | 12.65% | 100.0% |
| Atmos Energy | $0.290 | $22.987 | 7.57% | 13.54% | 86.4% |
| Energen Corp. | $0.170 | $30.793 | 11.00% | 13.71% | 65.9% |
| KeySpan | $0.445 | $36.742 | 11.39% | 17.43% | 49.9% |
| Laclede | $0.335 | $24.102 | 3.33% | 9.59% | 100.0% |
| New Jersey Resources | $0.440 | $43.848 | 6.38% | 11.03% | 64.3% |
| NICOR Inc. | $0.440 | $37.925 | 5.79% | 11.01% | 82.5% |
| Northwest Natural Gas | $0.310 | $23.955 | 4.55% | 10.47% | 100.0% |
| NUI | $0.245 | $22.003 | 10.95% | 16.46% | 43.8% |
| Peoples Energy | $0.510 | $39.275 | 5.43% | 11.40% | 78.7% |
| Piedmont Natural Gas | $0.385 | $34.570 | 5.33% | 10.32% | 100.0% |
| SEMCO Energy | $0.210 | $14.537 | 6.45% | 13.24% | 72.0% |
| South Jersey Industries | $0.370 | $30.925 | 5.67% | 11.17% | 83.8% |
| WGL Holdings | $0.315 | $27.602 | 4.43% | 9.58% | 100.0% |
| Market Weighted Average | | | | 13.36% | |

(3) Market Weighted Average 11.43%

(1) FPC Witness Vander Weide Testimony, Schedule 3
(2) C.A. Turner Utility Reports, 2001 Financial Statistics of Public Utilities
(3) Market weighted average of DCF results for companies with 60% or more of revenues generated from natural gas operations

ELECTRIC UTILITY INDEX
For 12 months ended Dec. 31, 2000
($millions)

| (1) Company Name | (2) Bond Rating | (3) Short-term debt | (3) Long-term debt | (3) Preferred Stock | (3) Common Stock | (4) OBS debt | (5) Equity Ratio | (6) Adj Equity Ratio |
|---|---|---|---|---|---|---|---|---|
| Ameren Corp. | A+ | $203.3 | $2,789.5 | $235.2 | $3,196.7 | $48.4 | 49.76% | 49.38% |
| Cleco Corp. | BBB+ | $95.9 | $689.8 | $15.1 | $464.9 | $523.5 | 36.73% | 25.98% |
| DPL Inc. | BBB+ | $0.0 | $2,308.5 | $22.9 | $892.4 | $0.0 | 27.68% | 27.68% |
| DTE Energy Co. | BBB+ | $544.0 | $4,150.0 | $0.0 | $4,015.0 | $57.0 | 46.10% | 45.80% |
| FPL Group Inc. | A | $1,158.0 | $4,041.0 | $226.0 | $5,593.0 | $1,213.3 | 50.76% | 45.73% |
| Hawaiian Electric Industries Inc. | BBB | $23.6 | $524.0 | $0.0 | $839.1 | $130.4 | 60.51% | 55.31% |
| IDACORP Inc. | A+ | $120.6 | $903.9 | $105.1 | $820.8 | $22.4 | 42.08% | 41.61% |
| Kansas City Power & Light Co. | A- | $55.6 | $1,285.5 | $39.1 | $921.4 | $106.5 | 40.03% | 38.26% |
| NSTAR | A | $468.3 | $1,535.5 | $43.0 | $1,376.4 | $123.9 | 40.21% | 38.80% |
| Pinnacle West Capital Corp. | BBB | $82.8 | $2,418.6 | $0.0 | $2,382.7 | $593.3 | 48.78% | 43.50% |
| Southern Co. | A | $1,680.0 | $10,156.0 | $368.0 | $10,690.0 | $795.0 | 46.69% | 45.13% |
| TECO Energy Inc. | A | $1,208.9 | $1,611.9 | $200.0 | $1,559.5 | $139.3 | 34.05% | 33.04% |
| | | | | | | Simple Average | 43.62% | 40.85% |
| | | | | | | Weighted Average | 45.45% | 43.27% |

(1) FPC Witness Vander Weide Testimony, Schedule 1
(2) Standard & Poor's Ratings Direct (online: www.ratingsdirect.com)
(3) Company SEC 10K Filings for Year Ended Dec. 31, 2000
(4) Standard & Poor's Balance Sheet Statistics for Electric Utilities
(5) E/R = CE / CE+PS+LTD+STD
(6) Adjusted E/R = CE / CE+PS+LTD+STD+OBS

ELECTRIC UTILITY INDEX (Operating Companies)
For 12 months ended Dec. 31, 2000
($millions)

| (1) | (2) | (3) | (3) | (3) | (3) | (4) | (5) | (6) |
|---|---|---|---|---|---|---|---|---|
| Company Name | Bond Rating | Short-term debt | Long-term debt | Preferred stock | Common stock | OBS debt | Equity Ratio | Adjusted Equity Ratio |
| Appalachian Power Co. | A- | $191.5 | $1,605.8 | $28.6 | $1,096.2 | $3.1 | 37.51% | 37.47% |
| Central Power & Light Co. | A- | $269.7 | $1,603.1 | $5.9 | $1,366.1 | $7.5 | 42.10% | 42.00% |
| Columbus Southern Power Co. | A- | $88.7 | $899.6 | $15.0 | $713.4 | $7.5 | 41.56% | 41.38% |
| Indiana Michigan Power Co. | A- | $354.4 | $1,388.9 | $73.7 | $793.1 | $818.6 | 30.39% | 23.13% |
| Kentucky Power Co. | A- | $47.6 | $330.9 | $0.0 | $266.7 | $0.2 | 41.34% | 41.32% |
| Ohio Power Co. | A- | $32.7 | $1,195.5 | $25.5 | $1,181.8 | $407.8 | 48.52% | 41.56% |
| Public Service Co. of Oklahoma | A- | $81.1 | $545.8 | $5.3 | $474.9 | $0.0 | 42.90% | 42.90% |
| Southwestern Electric Power Co. | A- | $16.8 | $755.9 | $4.7 | $674.6 | $0.0 | 46.46% | 46.46% |
| West Texas Utilities Co. | A- | $58.6 | $255.8 | $2.5 | $262.0 | $0.0 | 45.26% | 45.26% |
| Cleco Corporate & Power LLC | BBB+ | $41.4 | $360.3 | $0.0 | $407.1 | $523.5 | 50.33% | 30.56% |
| Dayton Power & Light Co. | BBB+ | $0.0 | $666.5 | $22.9 | $1,012.9 | $0.0 | 59.50% | 59.50% |
| Duquesne Light Co. | BBB+ | $0.8 | $1,080.0 | $222.1 | $539.6 | $23.9 | 29.29% | 28.91% |
| Detroit Edison Co. | BBB+ | $286.0 | $3,503.0 | $0.0 | $3,723.0 | $57.0 | 49.56% | 49.19% |
| Florida Power & Light Co. | A | $560.0 | $2,642.0 | $226.0 | $5,032.0 | $1,213.3 | 59.48% | 52.02% |
| Idaho Power Co. | A+ | $59.7 | $839.1 | $105.1 | $765.3 | $22.4 | 43.26% | 42.72% |
| Boston Edison Co. | A | $132.9 | $627.8 | $43.0 | $834.8 | $555.6 | 50.95% | 38.05% |
| Arizona Public Service Co. | BBB+ | $82.1 | $2,057.2 | $0.0 | $2,119.8 | $456.4 | 49.77% | 44.95% |
| Alabama Power Co. | A | $281.3 | $3,773.4 | $317.5 | $3,195.8 | $100.0 | 42.23% | 41.68% |
| Georgia Power Co. | A | $703.8 | $3,832.9 | $14.6 | $4,249.5 | $470.9 | 48.29% | 45.83% |
| Gulf Power Co. | A | $43.0 | $450.9 | $4.2 | $427.3 | $0.0 | 46.17% | 46.17% |
| ''ssissippi Power Co. | A | $56.0 | $405.5 | $31.8 | $404.9 | $0.5 | 45.08% | 45.05% |
| annah Electric & Power Co. | A | $45.4 | $187.6 | $0.0 | $174.9 | $3.5 | 42.88% | 42.51% |
| Tampa Electric Co. | A | $231.2 | $844.5 | $0.0 | $1,447.1 | $59.5 | 57.36% | 56.04% |
| Florida Power Corporation | BBB+ | $192.5 | $1,479.1 | $33.5 | $1,965.0 | $462.4 | 53.54% | 47.55% |
| Carolina Power & Light | BBB+ | $0.0 | $3,619.9 | $59.3 | $2,852.0 | $276.8 | 43.67% | 41.89% |
| Monongahela Power Co. | A+ | $37.0 | $706.7 | $74.0 | $707.9 | $43.9 | 46.40% | 45.10% |
| Potomac Edison Co. | A+ | $42.7 | $410.0 | $0.0 | $412.8 | $0.0 | 47.69% | 47.69% |
| West Penn Power Co. | A+ | $0.0 | $738.5 | $0.0 | $422.1 | $31.9 | 36.37% | 35.40% |
| Northern States Power Co. | A- | $359.2 | $1,352.8 | $0.0 | $1,632.3 | $0.0 | 48.81% | 48.81% |
| Northern States Power Wisconsin | A | $15.9 | $313.0 | $0.0 | $390.3 | $0.0 | 54.27% | 54.27% |
| Public Service Co. of Colorado | A- | $155.2 | $1,946.8 | $0.0 | $1,923.2 | $371.8 | 47.78% | 43.74% |
| Southwestern Public Service Co. | A- | $674.6 | $326.5 | $0.0 | $751.6 | $30.2 | 42.88% | 42.16% |
| PSI Energy Inc. | A- | $334.8 | $1,112.6 | $42.3 | $1,133.7 | $140.0 | 43.21% | 41.03% |
| Union Light Heat & Power Co. | A- | $29.4 | $74.5 | $0.0 | $147.2 | $29.6 | 58.62% | 52.44% |
| Cincinnati Gas & Electric Co. | A- | $427.5 | $1,206.3 | $20.5 | $1,695.8 | $194.1 | 50.62% | 47.85% |
| Consumers Energy Co. | BBB- | $403.0 | $2,736.0 | $44.0 | $2,026.0 | $836.0 | 38.89% | 33.52% |
| Virginia Electric & Power Co. | A | $714.0 | $3,937.0 | $509.0 | $3,849.0 | $965.3 | 42.72% | 38.59% |
| Northern Indiana Public Service Co. | BBB | $407.1 | $920.7 | $130.2 | $1,058.4 | $35.6 | 42.06% | 41.47% |
| TXU Electric Co. | BBB+ | $302.0 | $6,088.0 | $21.0 | $6,879.0 | $311.0 | 51.76% | 50.58% |
| | | | | | | Simple Average | 46.14% | 43.51% |
| | | | | | | Weighted Average | 46.96% | 44.21% |

(1) C.A. Turner Utility Reports, 2001 Financial Statistics of Public Utilities
(2) Standard & Poor's Ratings Direct (online: www.ratingsdirect.com)
(3) Company SEC 10K Filings for Year Ended Dec. 31, 2000
''' Standard & Poor's Balance Sheet Statistics for Electric Utilities
E/R = CE / CE+PS+LTD+STD
(6) Adjusted E/R = CE / CE+PS+LTD+STD+OBS

Utilities

| Quartiles - Equity Ratio | | Quartiles - Adjusted Equity Ratio | |
|---|---|---|---|
| **Top:** | | *Top:* | |
| Dayton Power & Light Co. | 59.50% | Dayton Power & Light Co. | 59.50% |
| Florida Power & Light Co. | 59.48% | Tampa Electric Co. | 56.04% |
| Union Light Heat & Power Co. | 58.62% | Northern States Power Wisconsin | 54.27% |
| Tampa Electric Co. | 57.36% | Union Light Heat & Power Co. | 52.44% |
| Northern States Power Wisconsin | 54.27% | Florida Power & Light Co. | 52.02% |
| **Florida Power Corporation** | 53.54% | TXU Electric Co. | 50.58% |
| TXU Electric Co. | 51.76% | Detroit Edison Co. | 49.19% |
| Boston Edison Co. | 50.95% | Northern States Power Co. | 48.81% |
| Cincinnati Gas & Electric Co. | 50.62% | Cincinnati Gas & Electric Co. | 47.85% |
| Cleco Corporate & Power LLC | 50.33% | Potomac Edison Co. | 47.69% |
| **Middle-top:** | | *Middle-top:* | |
| Arizona Public Service Co. | 49.77% | **Florida Power Corporation** | 47.55% |
| Detroit Edison Co. | 49.56% | Southwestern Electric Power Co. | 46.46% |
| Northern States Power Co. | 48.81% | Gulf Power Co. | 46.17% |
| Ohio Power Co. | 48.52% | Georgia Power Co. | 45.83% |
| Georgia Power Co. | 48.29% | West Texas Utilities Co. | 45.26% |
| Public Service Co. of Colorado | 47.78% | Monongahela Power Co. | 45.10% |
| Potomac Edison Co. | 47.69% | Mississippi Power Co. | 45.05% |
| Southwestern Electric Power Co. | 46.46% | Arizona Public Service Co. | 44.95% |
| Monongahela Power Co. | 46.40% | Public Service Co. of Colorado | 43.74% |
| Gulf Power Co. | 46.17% | Public Service Co. of Oklahoma | 42.90% |
| **Middle-bottom:** | | *Middle-bottom:* | |
| West Texas Utilities Co. | 45.26% | Idaho Power Co. | 42.72% |
| Mississippi Power Co. | 45.08% | Savannah Electric & Power Co. | 42.51% |
| Carolina Power & Light | 43.67% | Southwestern Public Service Co. | 42.16% |
| Idaho Power Co. | 43.26% | Central Power & Light Co. | 42.00% |
| PSI Energy Inc. | 43.21% | Carolina Power & Light | 41.89% |
| Public Service Co. of Oklahoma | 42.90% | Alabama Power Co. | 41.68% |
| Southwestern Public Service Co. | 42.88% | Ohio Power Co. | 41.56% |
| Savannah Electric & Power Co. | 42.88% | Northern Indiana Public Service Co. | 41.47% |
| Virginia Electric & Power Co. | 42.72% | Columbus Southern Power Co. | 41.38% |
| Alabama Power Co. | 42.23% | Kentucky Power Co. | 41.32% |
| **Bottom:** | | *Bottom:* | |
| Central Power & Light Co. | 42.10% | PSI Energy Inc. | 41.03% |
| Northern Indiana Public Service Co. | 42.06% | Virginia Electric & Power Co. | 38.59% |
| Columbus Southern Power Co. | 41.56% | Boston Edison Co. | 38.05% |
| Kentucky Power Co. | 41.34% | Appalachian Power Co. | 37.47% |
| Consumers Energy Co. | 38.89% | West Penn Power Co. | 35.40% |
| Appalachian Power Co. | 37.51% | Consumers Energy Co. | 33.52% |
| West Penn Power Co. | 36.37% | Cleco Corporate & Power LLC | 30.56% |
| Indiana Michigan Power Co. | 30.39% | Duquesne Light Co. | 28.91% |
| Duquesne Light Co. | 29.29% | Indiana Michigan Power Co. | 23.13% |

Staff's Fifth Set of Interrogatories

Question # 160

Common Equity Ratios

($000's)

| | Ratios | | | | | |
|---|---|---|---|---|---|---|
| | December 31, 1999 | | December 31, 2000 | | September 30, 2001 | |
| FPC | Amount | % age | Amount | % age | Amount | % age |
| Short-Term Debt | 153,100 | 4.22% | 192,500 | 5.25% | 0 | 0.00% |
| Long-Term Debt | 1,555,600 | 42.89% | 1,479,100 | 40.30% | 1,601,664 | 43.81% |
| Preferred Stock | 33,500 | 0.92% | 33,500 | 0.91% | 33,497 | 0.92% |
| Common Equity | 1,885,500 | 51.97% | 1,965,000 | 53.54% | 2,021,187 | 55.28% |
| Total Capitalization | 3,627,200 | 100.00% | 3,670,100 | 100.00% | 3,656,348 | 100.00% |

| | Ratios | | | | | |
|---|---|---|---|---|---|---|
| | December 31, 1999 | | December 31, 2000 | | September 30, 2001 | |
| Florida Progress & Eliminations | Amount | % age | Amount | % age | Amount | % age |
| Short-Term Debt | 0 | 0.00% | 274,000 | 21.38% | 313,936 | 24.61% |
| Long-Term Debt | 1,061,700 | 89.56% | 987,800 | 76.86% | 836,447 | 65.56% |
| Preferred Stock | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% |
| Common Equity | 123,700 | 10.44% | 22,600 | 1.76% | 125,385 | 9.83% |
| Total Capitalization | 1,185,400 | 100.00% | 1,285,200 | 100.00% | 1,275,768 | 100.00% |

| | Ratios | | | | | |
|---|---|---|---|---|---|---|
| | December 31, 1999 | | December 31, 2000 | | September 30, 2001 | |
| Total Florida Progress | Amount | % age | Amount | % age | Amount | % age |
| Short-Term Debt | 153,100 | 3.18% | 467,300 | 9.43% | 313,936 | 5.37% |
| Long-Term Debt | 2,617,300 | 54.38% | 2,466,900 | 49.78% | 2,438,111 | 49.43% |
| Preferred Stock | 33,500 | 0.70% | 33,500 | 0.68% | 33,497 | 0.68% |
| Common Equity | 2,008,700 | 41.74% | 1,987,600 | 40.11% | 2,146,572 | 43.52% |
| cal Capitalization | 4,812,600 | 100.00% | 4,955,300 | 100.00% | 4,932,116 | 100.00% |

Staff's Fifth Set of Interrogatories
Question # 160
Common Equity Ratios
($000's)

| | Ratios | | | |
|---|---|---|---|---|
| | December 31, 2000 | | September 30, 2001 | |
| CP&L | Amount | % age | Amount | % age |
| Short-Term Debt | 0 | 0.00% | 0 | 0.00% |
| Long-Term Debt | 3,619,984 | 55.42% | 3,730,124 | 53.69% |
| Preferred Stock | 59,334 | 0.91% | 59,334 | 0.85% |
| Common Equity | 2,852,038 | 43.67% | 3,158,452 | 45.46% |
| Total Capitalization | 6,531,356 | 100.00% | 6,947,910 | 100.00% |

| | Ratios | | | |
|---|---|---|---|---|
| | December 31, 2000 | | September 30, 2001 | |
| Progress Energy, Inc. Holdings & Eliminations | Amount | % age | Amount | % age |
| Short-Term Debt | 3,492,623 | 85.66% | 350,109 | 7.91% |
| Long-term Debt | 0 | 0.00% | 3,178,277 | 71.80% |
| Preferred Stock | 0 | 0.00% | 0 | 0.00% |
| Common Equity | 584,563 | 14.34% | 898,073 | 20.29% |
| Total Capitalization | 4,077,186 | 100.00% | 4.426459 | 100.00% |

| | Ratios | | | |
|---|---|---|---|---|
| | December 31, 2000 | | September 31, 2001 | |
| Total Progress Energy, Inc. | Amount | % age | Amount | % age |
| Short-Term Debt | 3,972,674 | 25.53% | 66,045 | 4.07% |
| Long-Term Debt | 6,074,136 | 39.03% | 9,346,512 | 57.32% |
| Preferred Stock | 92,831 | .060% | 92,831 | 0.57% |
| Common Equity | 5,424,201 | 34.58% | 6,203,097 | 38.04% |
| Total Capitalization | 15,563,842 | 100.00% | 16,306,485 | 100.00% |

# S&P Risk-Adjusted Financial Targets

| | | A- | BBB+ | BBB |
|---|---|---|---|---|
| (1) | Total Debt / Total Capital (%) | 46 | 49 | 51 |
| | Implied Equity Ratio (%) | 54 | 51 | 49 |

Source: S&P Rating Evaluation for CP&L Energy, Inc., Sept. 13, 2000 (Staff POD 12, Bate Stamp OPC 5 1524)

| | | A | BBB |
|---|---|---|---|
| (2) | Total Debt / Total Capital (%) | 46-50 | 53-57 |
| | Implied Equity Ratio (%) | 50-54 | 43-47 |

Source: S&P Corporate Rating Criteria 2001, p. 58 (S&P Ratings Direct, www.ratingsdirect.com)

(1) Business position 5

(2) Above average business position

# Incremental Revenue Requirement

| | | | |
|---|---|---|---|
| (1) | pre-tax COC @ 61.1% E/R | 12.85% | |
| (1) | pre-tax COC @ 55.0% E/R | 12.21% | |
| | difference | 0.64% | |
| (2) | assumed rate base | | $3,665,498,000 |
| | difference | x | .0064 |
| | incremental revenue requirement | | **$23,459,187** |

(1) ALM-11

(2) total capital from MFR D-1

**FPC - with 11.5% ROE**

| Class of Capital | ($000) FPSC Adj'd Retail | Ratio | Cost Rate | After-tax Weighted Cost Rate | Pre-tax Weighted Cost Rate |
|---|---|---|---|---|---|
| Common Equity | $1,966,206 | 53.64% | 11.50% | 6.17% | 10.05% |
| Preferred Stock | $30,245 | 0.83% | 4.51% | 0.04% | 0.06% |
| Long Term Debt | | | | | |
| Fixed Rate Debt | $1,210,276 | 33.02% | 7.14% | 2.36 | %2.36% |
| Variable Rate Debt | $6,220 | 0.17% | 4.92% | 0.01% | 0.01% |
| Short Term Debt | $2,268 | 0.06% | 4.92% | 0.00% | 0.00% |
| Customer Deposits | | | | | |
| Active | $112,388 | 3.07% | 6.13% | 0.19% | 0.19% |
| Inactive | $387 | 0.01% | 0.00% | 0.00% | 0.00% |
| Investment Tax Credit | | | | | |
| Post '70 - Equity | $28,053 | 0.77% | 11.39% | 0.09% | 0.14% |
| Post '70 - Debt | $17,092 | 0.47% | 7.13% | 0.03% | 0.03% |
| Deferred Income Taxes | $321,038 | 8.76% | 0.00% | 0.00% | 0.00% |
| FAS 109 Liability - Net | ($28,675) | -0.78% | 0.00% | -0.00% | -0.00% |
| Total Capital Structure | $3,665,498 | 100.00% | | 8.88% | 12.85% |

**FPC - with 55% Equity Ratio & 11.5% ROE**

| Class of Capital | ($000) FPSC Adj'd Retail | Ratio | Cost Rate | After-tax Weighted Cost Rate | Pre-tax Weighted Cost Rate |
|---|---|---|---|---|---|
| Common Equity | $1,768,456 | 48.25% | 11.50% | 5.55% | 9.04% |
| Preferred Stock | $30,245 | 0.83% | 4.51% | 0.04% | 0.06% |
| Long Term Debt | | | | | |
| Fixed Rate Debt | $1,407,017 | 38.39% | 7.14% | 2.74% | 2.74% |
| Variable Rate Debt | $7,229 | 0.20% | 4.92% | 0.01% | 0.01% |
| Short Term Debt | $2,268 | 0.06% | 4.92% | 0.00% | 0.00% |
| Customer Deposits | | | | | |
| Active | $112,388 | 3.07% | 6.13% | 0.19% | 0.19% |
| Inactive | $387 | 0.01% | 0.00% | 0.00% | 0.00% |
| Investment Tax Credit | | | | | |
| Post '70 - Equity | $25,256 | 0.69% | 11.38% | 0.08% | 0.13% |
| Post '70 - Debt | $19,889 | 0.54% | 7.13% | 0.04% | 0.04% |
| Deferred Income Taxes | $321,038 | 8.76% | 0.00% | 0.00% | 0.00% |
| FAS 109 Liability - Net | ($28,675) | -0.78% | 0.00% | -0.00% | -0.00% |
| Total Capital Structure | $3,665,498 | 100.00% | | 8.64% | 12.21% |

**GULF - with 11.5% ROE**

| Class of Capital | ($000) Jurisdictional Capital Structure | Ratio | Cost Rate | After-tax Weighted Cost Rate | Pre-tax Weighted Cost Rate |
|---|---|---|---|---|---|
| Long Term Debt | $437,913 | 36.54% | 7.08% | 2.59% | 2.59% |
| Short Term Debt | $17,801 | 1.49% | 6.02% | 0.09% | 0.09% |
| Preferred Stock | $99,565 | 8.31% | 5.01% | 0.42% | 0.42% |
| Common Equity | $491,919 | 41.04% | 11.50% | 4.72% | 7.69% |
| Customer Deposits | $13,249 | 1.11% | 5.98% | 0.07% | 0.07% |
| Deferred Taxes | $121,470 | 10.14% | 0.00% | 0.00% | 0.00% |
| Investment Credits - Zero Cost | $0 | 0.00% | 0.00% | 0.00% | 0.00% |
| Investment Credits - Weighted Cost | $16,584 | 1.38% | 8.99% | 0.12% | 0.17% |
| Total Capital | $1,198,502 | 100% | | 8.00% | 11.02% |

1FR D-1 FPC and Gulf, respectively

Nine months ended Sept. 30, 2001

| | | Southern Company | Progress Energy |
|---|---|---|---|
| (1) | S&P Rating | A | BBB+ |
| (2) | Total Assets ($millions) | $29,798.7 | $20,673.0 |
| (2) | Total Revenues ($millions) | $ 7,995.8 | $ 6,554.3 |
| (3) | Equity Ratio | 38.1% | 38.0% |
| (5) | # of Electric Utilities | 5 | 2 |
| (6) | Total Capacity (kilowatts) year ended 12/31/00 | 32,806,926 | 21,623,000 |

| | | Gulf Power Company | Florida Power Corporation |
|---|---|---|---|
| (1) | S&P Rating | A | BBB+ |
| (2) | Total Assets ($millions) | $1,526.5 | $5,044.1 |
| (2) | Total Revenue ($millions) | $ 572.1 | $2,500.3 |
| (7) | Equity Ratio (Ratecase) | 47.0% | 61.2% |
| (3) | Equity Ratio (actual) | 46.2% | 55.3% |
| (4) | Adjusted Equity Ratio | 46.2% | 49.1% |
| (6) | Total Capacity (kilowatts) year ended 12/31/00 | 2,188,150 | 9,312,000 |

(1) Standard & Poor's Ratings Direct (Online: www.ratingsdirect.com)

(2) Company SEC 10Q Filings for quarter ended Sept. 30, 2001

(3) E/R = CE / CE+PS+LTD+STD

(4) Adjusted E/R = CE / CE+PS+LTD+STD+OBS

(5) C.A. Turner Utility Reports, 2001 Financial Statistics of Public Utilities

(6) Company SEC 10K Filings for year ended Dec. 31, 2000

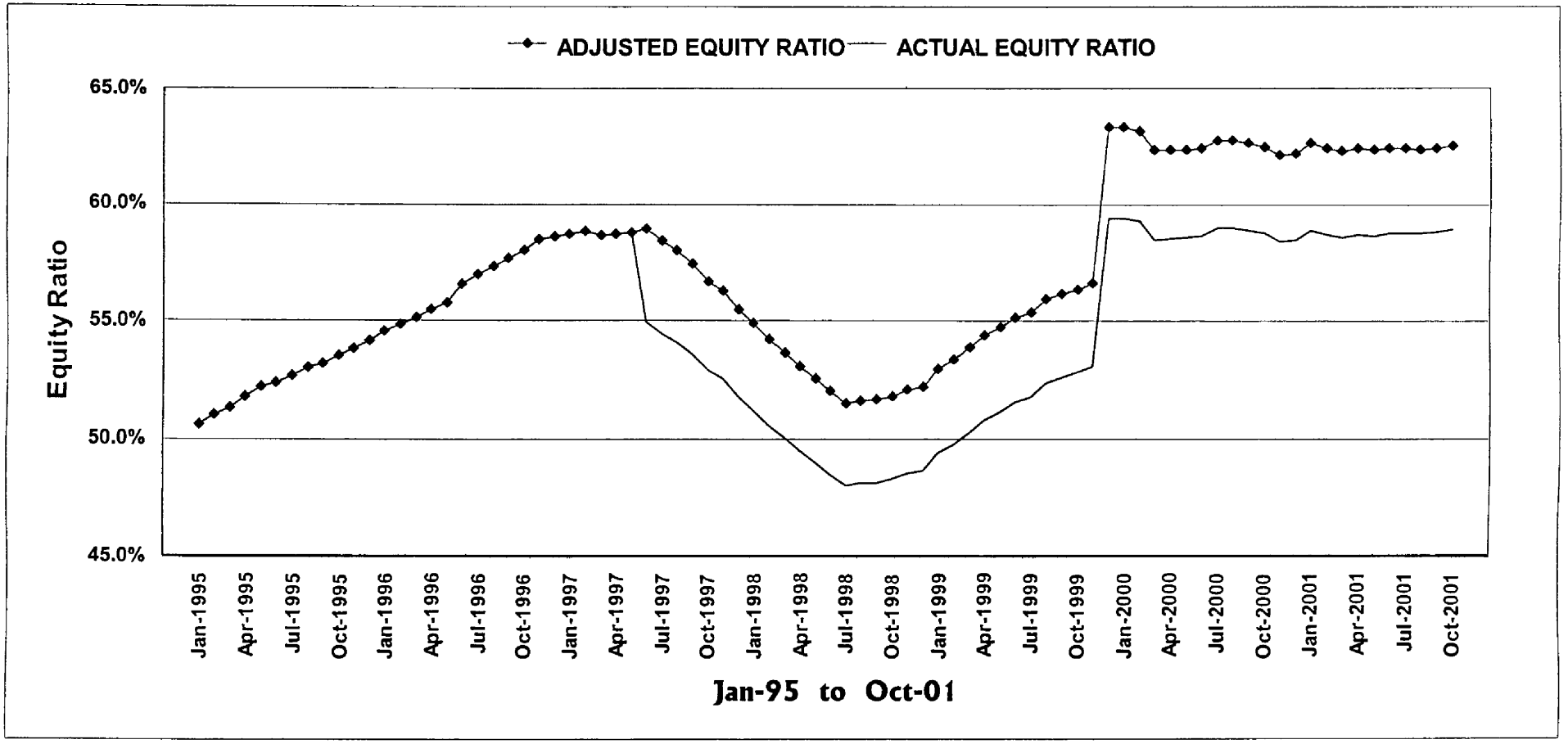
(7) Equity ratio proposed for ratemaking (MFR D-1)

*(In Millions)*

| | Common Equity | Preferred Stock | Long-Term Debt (Fixed) | Long-Term Debt (Variable) | Short-Term Debt | CR3 Adj. | Adjusted Equity Ratio | Actual Equity Ratio |
|---|---|---|---|---|---|---|---|---|
| Jan-1995 | 1,399.4 | 128.3 | 1,017.5 | 165.1 | 53.1 | 0.0 | 50.6% | 50.6% |
| Feb-1995 | 1,411.5 | 128.1 | 1,015.2 | 165.2 | 45.2 | 0.0 | 51.0% | 51.0% |
| Mar-1995 | 1,420.8 | 127.8 | 1,012.6 | 163.9 | 41.6 | 0.0 | 51.4% | 51.4% |
| Apr-1995 | 1,435.7 | 127.7 | 1,010.9 | 163.8 | 34.3 | 0.0 | 51.8% | 51.8% |
| May-1995 | 1,448.3 | 127.4 | 1,007.2 | 163.5 | 29.2 | 0.0 | 52.2% | 52.2% |
| Jun-1995 | 1,455.0 | 127.4 | 1,005.4 | 163.1 | 28.1 | 0.0 | 52.4% | 52.4% |
| Jul-1995 | 1,463.5 | 127.2 | 1,002.3 | 162.3 | 25.0 | 0.0 | 52.6% | 52.6% |
| Aug-1995 | 1,473.2 | 127.0 | 999.6 | 158.3 | 20.4 | 0.0 | 53.0% | 53.0% |
| Sep-1995 | 1,486.2 | 127.4 | 1,002.8 | 152.9 | 25.2 | 0.0 | 53.2% | 53.2% |
| Oct-1995 | 1,493.6 | 127.1 | 1,000.3 | 144.8 | 25.6 | 0.0 | 53.5% | 53.5% |
| Nov-1995 | 1,501.2 | 126.5 | 997.2 | 138.6 | 25.6 | 0.0 | 53.8% | 53.8% |
| Dec-1995 | 1,504.8 | 125.8 | 992.7 | 131.7 | 23.7 | 0.0 | 54.2% | 54.2% |
| Jan-1996 | 1,513.0 | 125.5 | 991.4 | 125.6 | 17.6 | 0.0 | 54.6% | 54.6% |
| Feb-1996 | 1,515.6 | 124.9 | 986.7 | 116.9 | 18.0 | 0.0 | 54.9% | 54.9% |
| Mar-1996 | 1,525.0 | 125.0 | 987.8 | 107.7 | 18.9 | 0.0 | 55.2% | 55.2% |
| Apr-1996 | 1,531.3 | 124.6 | 985.5 | 97.1 | 21.6 | 0.0 | 55.5% | 55.5% |
| May-1996 | 1,534.1 | 123.9 | 981.7 | 85.9 | 24.1 | 0.0 | 55.8% | 55.8% |
| Jun-1996 | 1,564.0 | 120.0 | 996.4 | 81.4 | 0.8 | 0.0 | 56.6% | 56.6% |
| Jul-1996 | 1,568.8 | 113.9 | 993.0 | 77.7 | 0.0 | 0.0 | 57.0% | 57.0% |
| Aug-1996 | 1,582.6 | 108.4 | 992.5 | 77.1 | 0.0 | 0.0 | 57.3% | 57.3% |
| Sep-1996 | 1,589.1 | 102.6 | 988.8 | 75.2 | 0.0 | 0.0 | 57.7% | 57.7% |
| Oct-1996 | 1,592.9 | 96.5 | 981.9 | 72.2 | 0.0 | 0.0 | 58.1% | 58.1% |
| Nov-1996 | 1,599.6 | 88.9 | 977.6 | 69.7 | 0.0 | 0.0 | 58.5% | 58.5% |
| c-1996 | 1,608.6 | 81.9 | 977.7 | 71.7 | 4.3 | 0.0 | 58.6% | 58.6% |
| Jan-1997 | 1,611.2 | 74.5 | 970.9 | 77.2 | 10.8 | 0.0 | 58.7% | 58.7% |
| Feb-1997 | 1,612.8 | 67.1 | 963.8 | 85.1 | 11.3 | 0.0 | 58.9% | 58.9% |
| Mar-1997 | 1,604.5 | 59.8 | 957.5 | 95.6 | 17.6 | 0.0 | 58.7% | 58.7% |
| Apr-1997 | 1,604.9 | 52.5 | 950.8 | 106.4 | 18.7 | 0.0 | 58.7% | 58.7% |
| May-1997 | 1,604.7 | 45.2 | 943.4 | 117.3 | 19.4 | 0.0 | 58.8% | 58.8% |
| Jun-1997 | 1,615.0 | 38.2 | 942.5 | 118.6 | 23.8 | 109.6 | 59.0% | 55.0% |
| Jul-1997 | 1,617.4 | 36.4 | 966.7 | 118.1 | 29.3 | 109.6 | 58.4% | 54.5% |
| Aug-1997 | 1,625.2 | 34.8 | 993.8 | 118.2 | 28.8 | 109.6 | 58.0% | 54.1% |
| Sep-1997 | 1,628.1 | 33.1 | 1,023.4 | 120.9 | 27.6 | 109.6 | 57.5% | 53.6% |
| Oct-1997 | 1,624.6 | 31.4 | 1,054.6 | 126.5 | 27.3 | 109.6 | 56.7% | 52.9% |
| Nov-1997 | 1,633.5 | 29.6 | 1,080.4 | 130.0 | 27.2 | 109.6 | 56.3% | 52.5% |
| Dec-1997 | 1,631.6 | 29.8 | 1,116.1 | 129.2 | 33.6 | 109.6 | 55.5% | 51.8% |
| Jan-1998 | 1,634.9 | 29.7 | 1,140.5 | 121.3 | 50.9 | 109.6 | 54.9% | 51.2% |
| Feb-1998 | 1,633.9 | 29.6 | 1,178.3 | 113.8 | 58.9 | 109.6 | 54.2% | 50.6% |
| Mar-1998 | 1,637.6 | 29.7 | 1,211.1 | 106.9 | 67.1 | 109.6 | 53.7% | 50.1% |
| Apr-1998 | 1,636.1 | 29.6 | 1,237.7 | 99.7 | 79.0 | 109.6 | 53.1% | 49.5% |
| May-1998 | 1,636.6 | 29.5 | 1,264.9 | 92.5 | 91.1 | 109.6 | 52.5% | 49.0% |

*(In Millions)*

| | Common Equity | Preferred Stock | Long-Term Debt (Fixed) | Long-Term Debt (Variable) | Short-Term Debt | CR3 Adj. | Adjusted Equity Ratio | Actual Equity Ratio |
|---|---|---|---|---|---|---|---|---|
| Jun-1998 | 1,626.9 | 29.3 | 1,286.5 | 85.7 | 98.8 | 109.6 | 52.0% | 48.5% |
| Jul-1998 | 1,625.2 | 29.2 | 1,311.4 | 83.0 | 105.3 | 109.6 | 51.5% | 48.1% |
| Aug-1998 | 1,623.2 | 29.1 | 1,303.8 | 77.5 | 111.3 | 109.6 | 51.6% | 48.1% |
| Sep-1998 | 1,621.0 | 29.0 | 1,299.8 | 72.3 | 115.0 | 109.6 | 51.7% | 48.2% |
| Oct-1998 | 1,619.4 | 28.9 | 1,294.1 | 65.5 | 117.4 | 109.6 | 51.8% | 48.3% |
| Nov-1998 | 1,622.0 | 28.9 | 1,285.4 | 59.6 | 117.3 | 109.6 | 52.1% | 48.6% |
| Dec-1998 | 1,620.4 | 29.0 | 1,283.3 | 56.9 | 116.2 | 109.6 | 52.2% | 48.6% |
| Jan-1999 | 1,637.4 | 28.8 | 1,268.8 | 56.3 | 99.7 | 109.6 | 53.0% | 49.4% |
| Feb-1999 | 1,640.2 | 28.8 | 1,258.7 | 56.2 | 90.9 | 109.6 | 53.3% | 49.8% |
| Mar-1999 | 1,651.4 | 28.9 | 1,247.8 | 56.0 | 82.2 | 109.6 | 53.9% | 50.3% |
| Apr-1999 | 1,669.7 | 29.1 | 1,250.2 | 55.8 | 65.7 | 109.6 | 54.4% | 50.8% |
| May-1999 | 1,672.9 | 29.0 | 1,240.5 | 55.5 | 57.0 | 109.6 | 54.8% | 51.2% |
| Jun-1999 | 1,685.4 | 29.2 | 1,239.9 | 55.2 | 45.3 | 109.6 | 55.2% | 51.6% |
| Jul-1999 | 1,695.8 | 29.2 | 1,233.7 | 55.2 | 49.3 | 109.6 | 55.4% | 51.8% |
| Aug-1999 | 1,715.2 | 29.4 | 1,233.7 | 54.6 | 32.3 | 109.6 | 56.0% | 52.4% |
| Sep-1999 | 1,725.9 | 29.5 | 1,230.3 | 55.1 | 32.5 | 109.6 | 56.2% | 52.6% |
| Oct-1999 | 1,736.3 | 29.5 | 1,224.6 | 57.2 | 32.5 | 109.6 | 56.4% | 52.8% |
| Nov-1999 | 1,752.0 | 29.6 | 1,222.8 | 56.7 | 32.7 | 109.6 | 56.6% | 53.1% |
| Dec-1999 | 1,761.7 | 29.8 | 914.2 | 58.3 | 16.4 | 109.6 | 63.4% | 59.4% |
| Jan-2000 | 1,775.1 | 29.9 | 913.0 | 58.6 | 25.5 | 109.6 | 63.3% | 59.4% |
| Feb-2000 | 1,782.7 | 30.1 | 914.1 | 59.5 | 34.2 | 109.6 | 63.2% | 59.3% |
| Mar-2000 | 1,775.6 | 30.0 | 940.2 | 59.9 | 41.4 | 109.6 | 62.4% | 58.5% |
| Apr-2000 | 1,787.7 | 30.1 | 939.7 | 60.7 | 48.8 | 109.6 | 62.4% | 58.5% |
| May-2000 | 1,817.3 | 30.5 | 947.8 | 61.6 | 55.4 | 109.6 | 62.4% | 58.6% |
| Jun-2000 | 1,819.1 | 30.4 | 942.5 | 62.2 | 59.6 | 109.6 | 62.4% | 58.7% |
| Jul-2000 | 1,831.1 | 30.3 | 927.2 | 61.9 | 67.7 | 109.6 | 62.7% | 59.0% |
| Aug-2000 | 1,834.1 | 30.2 | 916.5 | 63.9 | 76.8 | 109.6 | 62.8% | 59.0% |
| Sep-2000 | 1,835.1 | 30.1 | 909.2 | 67.3 | 86.9 | 109.6 | 62.7% | 58.9% |
| Oct-2000 | 1,840.4 | 30.1 | 903.9 | 71.7 | 97.9 | 109.6 | 62.5% | 58.8% |
| Nov-2000 | 1,829.5 | 30.1 | 897.5 | 81.1 | 105.9 | 109.6 | 62.1% | 58.4% |
| Dec-2000 | 1,841.3 | 30.3 | 899.0 | 82.3 | 108.6 | 109.6 | 62.2% | 58.5% |
| Jan-2001 | 1,851.3 | 30.1 | 892.8 | 74.1 | 107.6 | 109.6 | 62.6% | 58.9% |
| Feb-2001 | 1,844.8 | 30.1 | 892.6 | 81.1 | 107.4 | 109.6 | 62.4% | 58.7% |
| Mar-2001 | 1,845.3 | 30.0 | 896.5 | 81.1 | 107.7 | 109.6 | 62.3% | 58.6% |
| Apr-2001 | 1,854.8 | 30.1 | 902.5 | 81.2 | 102.6 | 109.6 | 62.4% | 58.7% |
| May-2001 | 1,856.3 | 30.0 | 906.0 | 81.1 | 102.9 | 109.6 | 62.4% | 58.7% |
| Jun-2001 | 1,877.4 | 30.1 | 911.3 | 81.2 | 106.2 | 109.6 | 62.5% | 58.8% |
| Jul-2001 | 1,884.7 | 30.1 | 930.3 | 80.6 | 94.6 | 109.6 | 62.4% | 58.8% |
| Aug-2001 | 1,890.8 | 30.1 | 955.8 | 72.5 | 82.1 | 109.6 | 62.4% | 58.8% |
| Sep-2001 | 1,899.3 | 30.2 | 984.5 | 65.1 | 62.8 | 109.6 | 62.4% | 58.8% |
| Oct-2001 | 1,903.3 | 30.2 | 1,007.1 | 55.3 | 46.4 | 109.6 | 62.6% | 59.0% |


ADJUSTED EQUITY RATIO
ACTUAL EQUITY RATIO
65.0%
60.0%
55.0%
50.0%
45.0%
Equity Ratio
Jan-1995
Apr-1995
Jul-1995
Oct-1995
Jan-1996
Apr-1996
Jul-1996
Oct-1996
Jan-1997
Apr-1997
Jul-1997
Oct-1997
Jan-1998
Apr-1998
Jul-1998
Oct-1998
Jan-1999
Apr-1999
Jul-1999
Oct-1999
Jan-2000
Apr-2000
Jul-2000
Oct-2000
Jan-2001
Apr-2001
Jul-2001
Oct-2001
Jan-95 to Oct-01